United Nations E/2000/50

Economic and Social Council

Distr.: General
19 June 2000

Original: English

Substantive session of 2000
New York, 5 July-1 August 2000

World Economic and Social Survey, 2000*

Chapter I

The world economy in 2000

Introduction

Following the widespread economic setbacks in 1997-1998, the healing process in the global economy gathered momentum in the course of 1999 and is expected to broaden and deepen in the near future. The expansion in 2000 is likely to be even more dynamic than in the last two quarters of 1999, in which case growth in the global economy would return to the levels attained in the mid-1990s. As then, the current outlook is for this rate of growth to be sustained over the next few years. However, some macroeconomic imbalances that have developed as part of the recovery pose a potential threat to this favourable outlook and need to be addressed. Moreover, while widespread, the improved prospects are not universal. Continued efforts need to be made at all levels to ensure that the benefits of revitalized growth penetrate to all countries and individuals. Information and communications technologies (ICTs) can contribute to these efforts but spreading their benefits to where they are most needed will require conducive national policies and international support.

The improving international environment

Growth of gross world product (GWP) is expected to accelerate from 2.7 per cent in 1999 to 3½ per cent in 2000, this figure being the highest since 1996 (see table I.1). Global trade, which had been sluggish as a result of the financial crises and the concomitant economic slowdown, began to recover in the second half of 1999. Growth of world exports is forecast to be about 8 per cent per year in 2000-2001, compared with 4.8 per cent in 1999 and even less in 1998.

* The final version of the *World Economic and Social Survey, 2000* will be issued as a United Nations sales publication (Sales No. E.00.II.C.1).

00-48718 (E) 030700

Table 1.1
Growth of world output and trade, 1981-2000
(Annual percentage change)

	1981-1990	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999[a]*	*2000[b]*
World output[c]	2.9	1.1	1.9	1.3	3.0	2.7	3.6	3.4	1.9	2.7	3½
of which:											
Developed economies	3.0	1.1	1.8	0.8	2.7	2.3	3.2	3.0	2.1	2.6	3
Economies in transition	1.8	-8.0	-11.6	-6.7	-7.1	-0.6	0.0	2.3	-0.6	2.1	3¼
Developing economies	2.3	2.9	4.8	5.2	5.6	5.0	5.7	5.4	1.5	3.4	5¼
World trade[d]	4.5	4.3	5.7	4.6	10.5	8.6	5.5	9.2	3.3	4.8	8
Memorandum items:											
World											
Number of countries with rising per capita output	..	72	76	67	99	109	120	122	100	101	125
Number of countries in sample	..	129	140	145	145	145	145	145	145	145	145
Developing economies											
Number of countries with rising per capita output	..	57	59	51	64	72	80	78	58	58	75
Number of countries in sample	..	93	95	95	95	95	95	95	95	95	95
World output growth with PPP-based weights[e]	3.0	1.1	2.0	1.8	3.8	3.5	4.1	4.2	2.4	3.3	4¼

Source: Department of Economic and Social Affairs of the United Nations Secretariat (UN/DESA).

Note: Two dots (..) indicate that data are not available.

[a] Partly estimated.
[b] Forecast, based in part on Project LINK.
[c] Calculated as a weighted average of individual country growth rates of gross domestic product (GDP), where weights are based on GDP in 1995 prices and exchange rates.
[d] Average of the growth rates of the volume of exports and imports for historical data. Only volume of exports data are used for estimate and forecast.
[e] Employing an alternative scheme for weighting national growth rates of GDP, based on purchasing power parity (PPP) conversions of national currency GDP into international dollars.

For countries and regions with spare production capacity in expanding sectors, demand for their exports from countries with buoyant domestic absorption levels has provided a crucial impetus to their recovery. Other countries, notably those that remain heavily dependent on non-fuel commodity exports, have been largely bypassed by the recovery in world trade.

International trade was severely depressed during 1997-1998 as a result of the fallout of the international financial crises. Many economies in transition and developing countries were forced to cut their imports substantially because the sudden deterioration in external financing conditions made it imperative to reduce external deficits. In addition, steep currency devaluations made imports more expensive for domestic consumers, inducing a cutback in domestic demand as well as a shift in demand towards domestic products. As a result, the impact of the financial crises on the economy of some crisis countries, beginning with Thailand, was transmitted to other countries, in the first instance in East and South-East Asia, via trade and other international linkages. The initial cuts in import demand by the crisis countries reduced exports, incomes and hence import demand elsewhere, adversely affecting international commodity prices and thus setting off a vicious circle. The more interdependent the world economy becomes, the larger these multiplier effects will tend to be. As a result, world trade declined more and for a longer period than world output during the downturn.

When world output started to recover in early 1999, international trade did not respond immediately. It lagged until the second half of 1999. For many crisis-affected economies, exports were one important factor driving their economic recovery. Their import demand did not pick up immediately because of the large slack in domestic capacity, devalued currencies and rebuilding of foreign reserves, but eventually this multiplier effect turned into a virtuous circle. With the recovery in world output solidifying, the benefits of reinforcing demand through trade and other commercial links should be reaped by an increasing number of countries and regions. It should also, in addition to the impetus emanating from strong export performances, provide the wherewithal for domestic consumption and investment to sustain growth.

This salutary multiplier effect through trade expansion is being reinforced by the bottoming out of most non-fuel commodity prices. Fuel prices, however, have risen steeply and are expected to remain comparatively high in 2000 (see chap. II).

Access to international financing is improving for a growing number of emerging market economies. Net private capital flows to emerging markets in 1999 barely increased from the low levels of 1998, when flows contracted to less than half of their pre-crisis peak, but have been recovering modestly since mid-1999. As international investor sentiment towards emerging markets continues to improve, net private flows to these countries are projected to increase in 2000. This will be driven chiefly by foreign direct investment (FDI), strengthened portfolio equity flows, and a moderate rebound in non-bank lending (see chap. II). In 1999, emerging market economies registered another large outflow of commercial bank lending and this is likely to continue in 2000 as financial institutions in the former crisis countries reduce their liabilities to foreign banks. Net official flows are also expected to decline, as most countries that were deeply affected by the financial crises are repaying the emergency assistance they secured at that time.

Along with the stabilization of most emerging financial markets and improved investor sentiment, risk premiums for these economies have fallen since mid-1999, as indicated by the decline of the interest-rate spreads between emerging market sovereign bonds and United States Treasury bonds (see chap. II). For most emerging market economies in Asia, the spreads in secondary markets have now returned to the levels observed prior to the default of the Russian Federation in August 1998. Those for Latin American borrowers have also fallen, though they remain well above the pre-crisis levels. For the Russian Federation, however, spreads continue to be at a punitive level, but are expected to decline in the near term.

Despite the anticipated upturn in capital flows, external financing will remain a major factor restraining the sustainability of strong economic growth in the medium to long run in most emerging market economies. While there is expected to be a further narrowing of interest-rate spreads in 2000, any major perturbation in financial markets of developed countries, such as marked corrections in stock markets or significant increases in interest rates, could adversely affect investor sentiment towards emerging markets. This would again widen the spreads and affect, possibly in major ways, the volume, composition and direction of capital flows to emerging market economies.

Despite these various improvements in the international environment, many countries have yet to participate in the recovery or see their pace of economic expansion return to pre-crisis levels. Growth patterns among country groups and within each of those broad groups remained divergent in 1999. Furthermore, while all developed countries recorded gains in their per capita gross domestic product (GDP) in 1999, the number of developing countries that recorded falling per capita output remained at 37 (out of the 95 regularly monitored) (see table I.2). However, the proportion of the population living in developing countries that experienced positive per capita growth rose from about 74 per cent in 1998 to some 78 per cent in 1999.

Sustained growth of per capita output of 3 per cent per annum is postulated as the minimum necessary to enable developing countries to make a significant reduction in poverty over the long run. The number of developing countries that achieved this benchmark declined from 24 in 1998 to 21 in 1999 and the proportion of the developing-country population in this category dropped in 1999 to 58 per cent from 61 per cent in 1998. Some middle-income countries in South-East Asia joined the group, while the number from Africa, especially sub-Saharan Africa, fell. The number of developing countries that failed to increase per capita GDP by 3 per cent in 1999 and the share of the population affected remained large. Moreover, only a modest improvement seems to be in the offing over the near term. The number of such countries and the proportion of the population of developing countries achieving this benchmark are expected to rise only to 29 and 63 per cent, respectively, in 2000. Meanwhile, the number of countries that are forecast not to increase per capita GDP in 2000 will drop, but only to 20, with the share of the population thus affected remaining at about 7 per cent. Almost half the countries monitored, accounting for about 30 per cent of the population of the developing world, will increase per capita output by less than 3 per cent. On these expectations, despite the relatively optimistic outlook for the world economy, it is unlikely that there will be a major dent in poverty in most developing countries in the near future.

Table I.2
Developing countries: growth of per capital GDP by region, 1997-2000

	Number of countries monitored	*Decline in GDP per capita*				*Growth of GDP per capita exceeding 3 per cent*			
		1997	*1998*	*1999[a]*	*2000[b]*	*1997*	*1998*	*1999[a]*	*2000[b]*
Frequency of high and low growth of per capita output (number of countries)									
Developing countries	95	17	37	37	20	33	24	21	20
of which:									
Latin America	24	2	8	12	4	8	5	5	7
Africa	38	8	13	12	7	10	11	6	10
East and South Asia	18	3	9	2	1	12	6	8	11
Western Asia	15	4	7	11	8	3	2	2	1
Memorandum items:									
Least developed countries	40	8	16	16	14	10	9	5	8
Sub-Saharan Africa	31	5	10	9	6	8	8	4	7
Percentage of population									
Developing countries	95	9.4	25.7	21.9	7.4	70.7	61.0	58.0	63.3
of which:									
Latin America	24	2.0	55.1	65.0	5.3	37.6	22.6	5.8	27.6
Africa	38	22.3	48.1	35.7	22.4	18.9	25.0	15.7	25.6
East and South Asia	18	6.8	13.6	6.7	0.0	90.9	79.3	80.3	82.6
Western Asia	15	18.5	52.3	86.8	59.6	36.9	15.8	9.7	9.4
Memorandum items:									
Least developed countries	40	11.3	32.8	32.9	29.6	30.5	33.0	24.3	42.2
Sub-Saharan Africa	31	23.1	42.4	40.0	28.9	14.8	18.9	9.6	19.6

Source: UN/DESA, including population estimates and projections from *World Population Prospects: The 1998 Revision* vol. I, *Comprehensive Tables* (United Nations publications, Sales No. E.99.XIII.9).

[a] Preliminary estimates.

[b] Forecast, based in part on Project LINK.

Sources of strength of the expansion

The current strength of the global economy has various origins. Some are cyclical in nature, and will fade in the near term as the business cycle progresses through its upturn. Others reside in changing foundations for economic development in the world economy, and are therefore more durable and potent over the longer term, offering the potential for higher global growth in the medium run.

One major cyclical factor has been the rapid economic recovery in many of the developing countries and economies in transition that were most adversely affected by the 1997-1998 financial crises. Their economic recession bottomed out or stagnation was halted in the course of 1999. The rapidity and intensity of the early phases of the recovery in a number of the crisis countries were surprising, given the widely held feeling in the international community and the countries concerned that the financial crises had led them into a deep trough.

The strong economic performance of the United States of America over nearly a decade has been another major factor behind the strengthening global economy. Overall demand in the United States has been driven primarily by domestic consumption and investment and so has exerted a positive pull on external demand for a number of other countries. Although the "new economy" (see below) may have raised its sustainable rate of growth, the United States is unlikely to be able to continue providing an external stimulus of the magnitude of recent years over the medium term.

An important long-term force behind the current global economic expansion, and particularly that of the United States, has been the diffusion in depth as well as in breadth of the new ICTs. Driven by accelerating innovations in these sectors, including personal computers (PCs), the Internet and telecommunications, many economies have seen a marked rise in investment spending in ICT-related equipment and software. To date only the United States, which is at the cutting edge in many ICT sectors, has produced macroeconomic statistics that illustrate persuasively the significant impact of the ICT revolution on productivity. This has given rise to a number of questions centring around the creation of a "new economy"; notably concerning the sustainability of strong productivity growth; and the potential for spreading the new economy to other economies, which might dramatically change the landscape for the strength of economic activity in the global economy as a whole. These issues are addressed in the annex to the present chapter.

World economic growth

Major world economic trends have not diverged significantly from those projected in the last two overviews by the United Nations Secretariat.[1] However, three differences need to be stressed. First, monetary tightening in many developed economies has been stronger and faster than anticipated. This stems from the acceleration in growth in the United States and from the fact that central banks of other developed countries felt the need to match, at least to some extent, the

[1] *World Economic and Social Survey, 1999* (United Nations publication, Sales No. E.99.II.C.1); and *Department of Economic and Social Affairs of the United Nations Secretariat and United Nations Conference on Trade and Development (UNCTAD)*, "World economic situation and prospects, 2000" (New York, 2000), mimeograph.

increases in interest rates that the Federal Reserve (Fed) had introduced as a result. Second, the prices of oil increased to levels that were significantly higher than foreseen. Third, the impact of the year 2000 date conversion problem of computers (Y2K) was much less than generally expected.

The developed economies have been leading the current global economic upturn. Growth in GDP for this group is expected to be 3 per cent in 2000, up from 2.6 per cent in 1999. A common feature among these economies has been the acceleration of investment spending in ICT sectors and on ICT hardware and software in many other sectors. This component of demand has increasingly become the most dynamic driving force of the upswing in these economies, most spectacularly in the United States.

The economic performance of the United States over the past few years has been unprecedented in its recent history. In April 2000, the upswing extended its record for the longest period of continued economic expansion — 109 months in a row. It is not only the length but also the strength of the current expansion in the United States, with low inflation and low unemployment, that has been confounding both observers and policy makers. Of particular surprise were the acceleration of GDP growth to an annualized rate of 7.3 per cent during the fourth quarter of 1999 and another strong performance (5.4 per cent at an annual pace) in the first quarter of 2000. As of May 2000, none of the conventional signs of a maturing business cycle were discernible on the horizon of this "ageing" cycle.

The prevailing tight labour market and the tightening of monetary policy in the United States, together with accumulating external imbalances that need to be contained, are setting limits to the continuation of this rapid growth. No significant signs are pointing to an imminent and sharp downturn in the economy, however. On present policies, the pace of the country's GDP growth is anticipated to be 4 per cent in 2000 and 3¼ per cent the year after.

Many other developed economies are also expected to experience growth in 2000-2001 of above 3 per cent. In the euro zone and in the broader European Union (EU) area, economic expansion has been gathering momentum since the second half of 1999, driven by exports and strengthening domestic demand, after pronounced weakness in late 1998 and early 1999. Strong external demand for EU is expected to continue in view of the broadening worldwide recovery and because exports from the members of the monetary union are enjoying a competitive edge owing to the weakening of the euro against the US dollar. Growth in other European developed economies is also robust.

In contrast, the Japanese economy remains sluggish, as the Government's large-scale stimulatory spending of the past several years has thus far failed to put either private consumption or investment demand on a self-sustained path. Despite a burst of optimism in the early part of the year, Japan recorded a recovery of only 0.3 per cent for 1999 as a whole, following the 2.5 per cent contraction the preceding year. Its GDP is expected to expand only by 1 per cent in 2000 and by 2 per cent the following year. This subdued outlook owes a lot to the uncertainties stemming from the pace and depth of the ongoing corporate restructuring, although the overhang of the large and increasing public debt has also been clouding the horizon.

The economic outlook for most developing economies has become more optimistic. Progress in domestic economic reforms, though varying from country to

country, and the improved international environment, notably less unfavourable commodity prices and more stable global financial markets, have been instrumental in improving the outlook. After two years of slowdown, GDP growth for the group is expected to increase from 3.4 per cent in 1999 to 5¼ per cent for 2000 and 5½ per cent for 2001, back to the rates of the pre-crisis period (see table A.4). Importantly from both a domestic and a global perspective, the two largest developing economies and those containing the largest number of the world's poor, China and India, have been growing at 6 to 7 per cent and are expected to sustain such growth in 2000 and 2001.

Growth for South and East Asian developing economies is expected to reach some 6½ per cent in 2000-2001, compared with 6.2 per cent in 1999. Most crisis-affected East Asian economies have been recovering at a robust pace, with the Republic of Korea leading the group at a record 10.7 per cent in 1999. Other economies in the region performed well too, with only Indonesia yet to embark upon a strong recovery path; this may come to pass in 2000, after virtual stagnation in 1999.

The strength and pace of these recoveries stem from stimulatory domestic policies and improvements in international trade. As the recovery in these economies exhausts the slack in production capacity generated during the crises, the pace of growth is likely to moderate. While external demand is expected to remain buoyant in the years ahead, macroeconomic policy stimulus cannot be continued indefinitely and further expansion in these countries depends crucially on investment in infrastructure and education and by the private sector. Some of these economies are positioning themselves to benefit from the ICT revolution, especially in semiconductors and broader computer hardware and software. The technological gaps in these economies, as compared with the leading developed economies, should provide an impetus to investment and thus to economic buoyancy for some time to come.

A rebound in Latin America and the Caribbean is anticipated in 2000-2001. After virtual stagnation in 1999, GDP is expected to register 3¾ per cent growth in 2000, with a further acceleration to 4¼ per cent in 2001. The slowdown in 1999 stemmed from the recession that several countries had experienced in the first half of the year. These recessionary experiences had varying origins, including the crisis in Brazil early in the year, the contraction of intraregional and other trade because of lack of demand and weakness in non-fuel commodity prices, the tightening of financing conditions, and necessary temporary restrictive domestic policy responses. The region's performance, though dismal for many economies, particularly in South America, was better than earlier feared because Brazil managed to avoid a widely expected sharp contraction and Mexico and most of the Central American and Caribbean countries grew relatively strongly.

With stronger growth and improved external financing conditions for Latin America, exports and investment are expected to set the pace of growth in the region. However, high levels of unemployment and tight credit in several economies may hold down growth in domestic demand. Fiscal retrenchment, political uncertainties and social unrest in some economies are also likely to restrain growth.

Prospects for economies in Africa and Western Asia have improved in general, but economic performances were highly divergent. While net fuel exporting economies in these regions benefited from the surge in oil prices, countries

producing non-oil commodities faced less favourable conditions. Even for the oil-producing economies, the strong rebound in the prices of oil in 1999 benefited in the first instance fiscal revenue and external balances; it made much less of a direct contribution to real GDP growth, in part because of reduced oil production. Despite an anticipated moderation in the prices of oil towards the end of 2000 and into 2001 (see chap. II), growth in Western Asia is forecast to accelerate from the 0.5 per cent recorded in 1999 to 4 per cent in 2000 and to 4¾ per cent in 2001.

After slow growth in 1998-1999, GDP for Africa is expected to increase by 4¼ per cent in 2000 and 4½ per cent in 2001; this is also the forecast for sub-Saharan Africa (excluding South Africa), suggesting an improvement of some 1½ per cent per year in per capita GDP in that subregion, although country performances remain highly differentiated.

Recent developments in the Baltic region, Central and Eastern Europe, and the Commonwealth of Independent States (CIS) have also been positive, underpinning a moderately optimistic outlook for the group. Growth is expected to be 3¾ per cent in 2000, compared with 2.1 per cent for 1999. A firm recovery is under way in the Baltic and the Central European economies, boosted by increased exports, rising investment, and more foreign capital inflows. Conditions in the South-eastern European countries remain subdued, however. For the group as a whole, GDP growth is expected to accelerate from 1.2 per cent in 1999 to 4 per cent in 2000 and to 4½ per cent in 2001.

The macroeconomic performance of the Russian Federation in 1999 turned out to be better than anticipated throughout much of 1999, thanks to increasing oil revenues and the competitive advantage domestic producers enjoyed from the steep rouble devaluation in August 1998. The country is expected to continue to grow in the near term, with an acceleration to 4 per cent in 2000-2001 from the 3.2 per cent in 1999 (see table A.3). This should continue to yield favourable spillovers for the neighbouring countries that still depend on the Russian Federation for much of their external demand. Broadening the recent and anticipated performance of the Russian Federation into a recovery that would be sustainable over the longer haul remains, however, critically dependent on the country's undertaking a range of incisive structural reforms. Bringing about such reforms poses a formidable challenge in and of itself, but the policy makers' task is even more complex since considerable political and social challenges will need to be addressed while waiting for the reforms to yield benefits in terms of rising incomes and sustained growth.

Inflation remains under control

In spite of the acceleration in the pace of output growth and the sharp rise in oil prices, inflation worldwide remained under control in 1999. The short-run inflation outlook continues to be benign, in spite of some slight acceleration in late 1999 and early 2000. Inflation trends across countries are far from uniform, however.

For developed economies, the disinflation observed in the past decade seems to be over. Most countries in this group came close to price stability in 1998-1999, but have since seen a slight increase in inflation rates (see table A.8). While the headline inflation indices in some of these economies started to rise notably at the beginning of 2000, mainly because of the surge in energy prices, the core inflation indices,

which exclude the prices of food and energy, remained subdued. This suggests that so far there has not been a pass-through of the increases in energy prices into the prices of other goods and services. With oil prices' having softened somewhat, pressures to reflect the increases in oil prices, notably in negotiating wages, have been weakening. However, if subsequent wage negotiations and price adjustments result in redress for the fall in real incomes and profits caused by higher energy prices, there might be an appreciable impetus to inflation.

Many factors that worked together in the past to keep inflation at bay in developed economies are expected to remain operative, at least for the next few years. These factors include disciplined fiscal policy, increased international competition, and vigilant monetary policy. Tight labour markets in some economies, especially in the United Kingdom of Great Britain and Northern Ireland and North America, have gradually elicited somewhat higher inflationary pressures in the form of increases in nominal wages in some sectors. However, improved productivity resulting from further technological progress is likely to hold unit labour costs in check, thus keeping a lid on inflation. As a result, inflation rates in most developed economies are expected to move up only slightly, from below 2 per cent in 1999 to above 2 per cent in 2000-2001, but are expected to remain below 3 per cent in all countries.

Such forecast inflation rates do not seem to pose a major threat to economic stability. Nevertheless, although the reaction function of monetary authorities in major countries is not spelled out in their publicly disclosed rules, inflation rates are nearing the point for policy action. In a number of countries, the monetary authorities took pre-emptive action in late 1999 and early 2000 to avert any marked uptick in inflation. To date, however, the acceleration of inflation is largely an expectation rather than something visible in reported inflation indices.

Inflation is expected to decline further in many developing countries and economies in transition in 2000. Economies with double-digit inflation rates in 1999, such as the Russian Federation, Turkey and a few Latin American countries, are expected to compress inflation. For developing countries as a whole, however, inflation is expected to rise slightly in 2000 from the 7 per cent estimated for 1999, largely on account of further price-level adjustments in Latin America and the Caribbean, as well as in Western Asia (see table A.10). On the other hand, inflation in economies in transition should revert back to 1998 levels — about 20 per cent on average. Inflation in the CIS countries more than doubled in 1999 on account of slippage in several States but should fall to about one third that level in 2000.

Many emerging market economies succeeded in reducing inflation in 1999. This was especially pronounced in Asia, where inflation fell significantly in many economies on account of excess capacity, international competition and, in some cases, appreciation of the currencies that had been sharply devalued during the crises. Many Asian economies registered near-zero inflation in 1999. With slack capacities' becoming exhausted, in many emerging market economies further economic expansion is likely to increase inflationary pressures in some cases, although inflation is not expected to be a major problem in these countries in the near term.

In a few economies, mainly Argentina, China, Hong Kong Special Administrative Region (SAR) of China, and Japan, weak effective demand caused mild deflation in 1999. This has shown some sign of easing, especially since the

beginning of 2000, as a result of reflationary policies and the pickup in the pace of economic activity.

Improving employment prospects

Global labour markets have improved, although less rapidly than global output because demand for labour usually rises with a lag after economic expansion takes hold. The outlook suggests, on the whole, continued improvement in employment, although there are sharp contrasts in labour markets in various countries and among regional groups.

In the United States, unemployment has fallen to levels not seen since the late 1960s (see table A.7). In contrast, given its nearly stagnant economy, unemployment in Japan has continued to increase. More lay-offs appear inevitable if the needed financial-sector and corporate restructuring continues.

In Western Europe, there has been some steady improvement in unemployment and further gains are expected. By the end of 1999, unemployment in the euro area dropped below 10 per cent for the first time since 1992. Expectations in the European Commission are that EU will create 4 million new jobs during 2000-2001, which would reduce unemployment from 16.3 million at the end of 1999 to 14.4 million at the end of 2001. Nevertheless, unemployment in Western Europe is likely to remain above 8 per cent for several years. The comparatively small improvement suggested by these numbers underlines that the cyclical improvement under way cannot solve the structural problems characterizing European labour markets. Labour-market reforms should therefore continue to rank high in the policy agenda. Progress over the medium term seems feasible, given recent policy commitments.[2]

The crisis-induced rise in unemployment in developing countries and economies in transition has finally peaked in some cases and started to fall in others. In Asian developing economies, the strong expansion is expected to reduce unemployment further in 2000-2001. Nevertheless, unemployment rates in the crisis-hit economies remain well above their pre-crisis levels. In Latin America, unemployment in some countries is still rising, while levels of unemployment in the formal sector in Africa continue to be substantial. Continuing corporate restructuring is expected to dampen the improvement in employment in the near term.

In China, lay-offs of workers from State-owned enterprises (SOEs) rose in 1999, resulting in a net cumulative total of 6.5 million such individuals who have not found official re-employment. Further restructuring of SOEs remains a high policy priority in modernizing the Chinese economy; accession to the World Trade Organization will strengthen this need. Further substantial shedding of labour by SOEs must therefore be expected.

With intensifying international competition in ICT sectors in particular, a shortage of skilled labour has become a common structural problem for both developed and developing economies. Several developed countries have recently loosened their immigration policies by introducing (as in Germany and the United

[2] The spring special session of the Council of the European Union (Lisbon, 23 and 24 March 2000) paid attention to policies to create jobs and upgrade labour quality.

States), or by contemplating the introduction of (as in the United Kingdom), special temporary immigration quotas for ICT specialists. These moves will encourage brain drain from the developing countries, further reducing their already scarce supply of skilled labour and slowing the pace at which these countries can narrow their technological gap relative to developed economies.

The policy environment in 1999-2000

Macroeconomic policy measures have been crucial in stimulating recovery from the recent international financial crises and in deepening and broadening that recovery to include a growing number of countries. As many economies are now entering an expansionary phase, the role of macroeconomic policy will be to maintain an appropriate pace of output growth, while keeping inflation within a safe range. At the same time, policy makers worldwide are facing many new challenges resulting from increased global economic integration, rapid technological innovation, and economic restructuring.

In certain developed economies, the combination of strong output growth with low inflation and unemployment suggests a decoupling of the links that have traditionally prevailed among those variables when the economic cycle matures and slack capacity begins to be exhausted. This decoupling is most pronounced in the United States and has given rise to the concept of the new economy (see annex).

In many emerging market economies, the international financial crises of the late 1990s prompted changes in the institutional framework for economic policy. Examples are the changes in exchange-rate regimes, the improvements in the rules and instruments for monetary policy, and the reforms of banking and financial systems. These and other changes have altered the channels through which financial policies affect real economic sectors.

Monetary policy

There has been a shift in the monetary policy of the central banks in many developed economies since mid-1999. Led by the United States Federal Reserve, most of these central banks started to reverse the easing of policy that they had implemented at the height of the financial crisis, and have since tightened monetary conditions further. By April 2000, the United States Federal Reserve had raised interest rates five times for a total of 125 basis points. The central banks of most other developed economies also raised rates, from 75 to 125 basis points, over the same period.

Core inflation rates in these economies have edged up only slightly so that most tightening so far has been pre-emptive. Nevertheless, further rises in interest rates are likely, according to the policy statements of many central banks. In the forecast presented here, it is assumed that there will be further rises in interest rates in the year 2000 of 50 basis points for the United States, 75 basis points for the euro area, and 50 to 75 basis points for other developed economies except Japan. Japan is an exception among these countries because, in the light of the hesitant Japanese

economic recovery, it is assumed there will be no tightening for the rest of 2000 of the near-zero interest rates that the central bank has maintained since early 1999.[3]

As a practical framework for monetary policy, several developed countries have adopted the practice of inflation-targeting since the early 1990s. The developed economies that have embraced this policy framework, usually after failures in targeting either money supply or the exchange rate, have in general been successful, as their inflation has remained fairly stable in the last decade.[4] More recently, a number of developing countries have adopted inflation-targeting, despite a number of questions regarding its effectiveness, particularly for countries undergoing structural and institutional changes, and its costs and benefits (see box I.1).

[3] However, a monetary policy announcement in mid-April 2000 suggested that the near-zero interest-rate policy might be abandoned before the end of 2000 (see *Financial Times*, 13 April 2000, p. 4). This possibility was strengthened by a discussion of monetary policy by the governor of the Bank of Japan (see *Financial Times*, 19 May 2000, p. 1).

[4] However, the 1990s have been a period of disinflation throughout most of the world economy. It is therefore not necessarily the case that direct inflation-targeting has been responsible for the success in controlling inflation, nor that the previous practices would have failed under such circumstances.

Box I.1
Inflation-targeting

In the past decade, a number of central banks in developed market economies have adopted "inflation-targeting" as a monetary policy regime. More recently, it has been suggested that those developing countries and economies in transition that shifted from fixed exchange-rate regimes to floating regimes — thereby forgoing the fixed exchange rate as the anchor for monetary policy — should adopt inflation-targeting as their new monetary policy regime. A few have done so, fuelling a debate on the subject.

There is a broad agreement that low inflation is good for growth and equity in the long run. The aim of inflation-targeting is to contain inflationary expectations and enhance accountability regarding monetary policy by setting a numerical target for the inflation rate over the medium term. The effectiveness of inflation-targeting in achieving these objectives depends on the nature of the disturbance to the economy. In the case of a demand shock, inflation-targeting acts like an automatic stabilizer because the shock pushes both prices and output in the same direction and the action taken to stabilize inflation will also be appropriate for output. This underlines the importance of responding symmetrically to expected deviations from the inflation target.

The policy responses to supply shocks are more problematic. A negative supply shock will lead to higher prices but lower output. Under such circumstances, a deflationary policy aimed at slowing inflation would exacerbate the negative output effect. As a result, the objectives should be to accommodate the initial effects of supply shocks to some degree and to minimize the feed-through into expectations and wage and pricing behaviour. To some extent, this can be accomplished by slowing the rate of convergence to the inflation target, thereby smoothing the contractionary effects of policy on output. In addition, the design of the policy framework can be tailored to further smooth the output effects. Finally, the credibility of the policy stance can help. If the public's long-run inflation expectations are firmly anchored to the inflation target, any deviations will be viewed as temporary, so that the feed-through should be minimal.

In practice, inflation-targeting embodies five key elements: (a) the public announcement of a numerical target for inflation and the time-horizon over which it must be achieved; (b) an institutional commitment to price stability as the primary goal of monetary policy; (c) reliance on a variety of types of information, not only monetary aggregates or the exchange rate, for deciding on policy; (d) increased communication with the public and the markets about the plans, objectives and decisions of the monetary authorities; and (e) accountability of the central bank for attaining its inflation objective. Within this framework, a number of practical issues need to be addressed.

First, a reference price index must be chosen, either a headline inflation figure, such as the consumer price index (CPI), or some measure

that reflects the trend in inflation by excluding volatile items, particularly those that are subject to supply shocks (such as food and energy).[a]

Second, the authorities need to select either a point or a range target. A range leaves some flexibility in responding and it communicates to the public that there is some uncertainty of control. It does not necessarily reduce the probability of falling outside the range, however, and this could affect credibility if economic agents believe a range to be more credible than a point target. The choice of values for either the point target or the end points of the range involves a trade-off between the benefits of low inflation and the dangers of inadvertent deflation. Most central banks that use inflation-targeting allow for an inflation measurement bias of about 1 per cent and for a safety margin, resulting in a central target of between 1 and 3 per cent and a range of about 2 percentage points.

Third, determining the time-horizon for reaching the target is crucial. A short horizon places most weight on the inflation objective, while a medium-term horizon conveys concern for other policy objectives. A sequence of short- to medium-term inflation targets, in addition to a long-term target, would communicate to the public that the central bank will exercise its discretion in dealing with exceptional circumstances, but that there is a precise time path for bringing inflation to the long-term goal.

Fourth, guidelines on possible escape clauses need to be elaborated. These might take the form of a contingent target or range that could be used when dealing with, for example, a supply shock (such as a deterioration in the terms of trade).

Finally, under exceptional circumstances, it might be possible to change the specification of the goal, such as the variable targeted (perhaps by excluding some additional items), the span of the range, or the numerical target. This possibility needs to be carefully weighed against the potential loss of credibility; how it would then be carried out and under whose authority will depend on the degree of independence of the central bank.

An inflation-targeting framework is not universally appropriate and the circumstances of individual countries need to be carefully considered. First, inflation-targeting requires that the central bank enjoy a minimal degree of independence in conducting monetary policy, at least in choosing its instruments. Second, monetary policy must be independent of fiscal policy and the latter must also be conducted responsibly. Monetizing fiscal deficits should be precluded.

Moreover, the country must be willing and able to subordinate all other macroeconomic policy goals to that of stable inflation. This implies a flexible exchange-rate regime in order to ensure that there is not an exchange-rate goal that conflicts with the inflation goal. It is therefore crucial that the economy be able to withstand exchange-rate shocks. This is not the case for countries with large external debts denominated in foreign currency, for example.

Introducing inflation-targeting also needs appropriate starting conditions. The most crucial is the state of inflation because it gives an indication of the stability of the overall economy. Gaining credibility is an important objective so that it is important to start inflation-targeting at a time and in a state when initial success can realistically be expected. If inflation is initially high, control is difficult and there is a likelihood of failing to achieve the target. Success is more likely when inflation is already low or declining. Without such success, the credibility of the monetary authorities will be rapidly eroded and not easily regained. In countries undergoing major structural change, relative prices necessarily have to change and it may be especially difficult to establish a realistic inflation target and meet it under those conditions.

Inflation-targeting is a demanding monetary policy framework. It may be suitable only for some developing countries and economies in transition, and then only after considerable preparatory work.

[a] If the selected index is unfamiliar to the public, policy makers may need to furnish an explanation.

In contrast to the monetary tightening in most developed economies, interest rates in many developing countries and economies in transition have remained virtually unchanged in 1999 and early 2000, although some of these economies have lowered their policy interest rates from the high levels adopted in the early stages of the crisis. This suggests a decoupling of nominal interest rates in the developed and developing countries. There are various reasons for this: the lagged growth cycle in many emerging market economies; the former high levels of interest rates in some of these countries, especially in real terms; the greater, though still limited, degree of independence gained for monetary policy in the many countries that have embraced floating exchange-rate regimes; and the improved international and domestic financial conditions in many countries.

In the forecast for 2000, no substantial changes in interest rates are expected for most developing countries and economies in transition. A few Asian economies that are recovering at a strong pace, such as Hong Kong SAR (also because of its adherence to a rather rigid currency board), the Republic of Korea and Singapore, are expected to enact small increases in interest rates, while some Latin American economies are likely to cut their high interest rates to underpin the gathering momentum of their recovery. Rising external imbalances in a number of economies in transition, especially those most advanced with their structural transformation, limit the ability of policy makers to reduce their high interest rates for fear that their economies overheat. In contrast, the CIS economies that are expected to reduce their inflation rates markedly should be able to bring down nominal interest rates.

Fiscal policy

As a result of the strengthened economic growth since mid-1999, there have been notable cyclical improvements in fiscal balances in many developed economies, as well as in several developing countries and economies in transition.

The large government surplus in the United States has continued to rise, reaching over $150 billion in 1999. In several other developed economies, fiscal deficits have declined or have switched from deficit into surplus. The budget deficit in almost every EU member is now below the threshold of 3 per cent of GDP specified in the Stability and Growth Pact. For most of these countries, the need of Governments to borrow is shrinking, entailing major changes in the structure of bond markets in some cases.

By contrast, the recession of 1998, the present nearly stagnant economy and the large amounts of government stimulus spending over two years have led to huge budget deficits in Japan (nearing 10 per cent of GDP in 1999). After implementation of the late 1999 supplementary budget, Japan's public debt is expected to be the highest in terms of GDP — some 130 per cent — of any developed country.

In the forecast, fiscal policy in most developed economies is expected to remain restrained. Tax cuts have been proposed or already approved in the 2000-2001 budgets for a number of these countries, but the fiscal positions of most Governments are expected to improve further as the economic expansion strengthens. In Japan, taking into account the package approved at the end of 1999 for implementation mainly in early 2000, fiscal policy is likely to be slightly stimulatory in 2000-2001.

Fiscal positions in many developing countries and economies in transition have also improved to varying degrees for a number of reasons. The surge in oil prices has brought windfalls to government revenues of many oil-producing economies. The strong recovery in many of the crisis-affected countries, particularly in Asia, has compressed the large budget deficits that were a concomitant of the fiscal stimuli introduced to counter the calamity. In several developing countries and economies in transition with high levels of public debt, lower interest rates have reduced government interest payments. Nevertheless, fiscal balances in the majority of developing countries and economies in transition remain in deficit, in a number of cases above 5 per cent of GDP. Fiscal consolidation is expected for most of these economies in 2000-2001.

Exchange-rate developments

The exchange rates of most currencies were relatively stable over the course of 1999 and early 2000. Although no sharp fluctuations in foreign exchange markets are assumed in the forecast, the risk of a larger-than-expected weakening of the United States dollar against other major currencies remains, given the massive external deficit and the possibility of a major fall in equity prices in the United States.

The euro depreciated 25 per cent against the United States dollar in the 16 months following its debut in 1999. This depreciation was partially in response to the sizeable differentials in GDP growth rates and in interest rates between the United States and the euro area; it was also a result of the appreciation of equity markets in the United States relative to those elsewhere, which in turn partially reflected expected growth differentials. With the pace of economic expansion in the euro area picking up, a mild recovery of the euro over the course of 2000-2001 is expected.

The exchange rate between the Japanese yen and the United States dollar has also been driven to some extent by the even larger growth differential between the two countries. The yen initially strengthened against the United States dollar during 1999 when the expectation of a recovery in Japan was high. It then retreated towards the end of the year when the Japanese economy recorded two quarters of decline, reversing earlier expectations. In the forecast, the yen is expected to hold its level against the dollar, consistent with the modest growth projected for Japan and the rising interest rate differentials in favour of the United States dollar.

After the large devaluations and the volatility in the currencies of many emerging market economies between mid-1997 and early 1999, many of these exchange rates stabilized. While a few currencies in Asia and Latin America, most spectacularly the won (Republic of Korea), have since appreciated somewhat, most have stayed at or near the lows incurred as a result of the devaluations.

As a contrast to such developments, the Russian rouble, the Kazakh tenge, the Ukrainian hryvnia and the currencies of several other economies in transition have continued to drift downward. Exceptions to this downward trend are offered by countries that have adopted a rigid exchange-rate regime, such as a currency board, or undertaken, as in the case of Latvia, emulation of the rules of the currency board. Several of these arrangements came under pressure following the fallout of the Russian crisis, but all countries adhered to their currency board-type arrangements, if sometimes at the cost of larger domestic adjustments than might otherwise have been required.

While some emerging market economies are continuing to use fixed exchange-rate systems, many have moved to floating regimes, or have been forced to do so by financial crises. The selection of an exchange-rate regime should not be seen as separate from the policy framework and the structural adjustment needs of any given economy, however. Those that have changed to floating rates have more freedom in conducting their monetary policy than economies that continue to adhere to fixed exchange rates, but have forgone their nominal anchor for monetary policy. In order to maintain low inflation and a stable exchange rate, some emerging market economies with a floating exchange-rate regime have adopted inflation-targeting as their monetary framework (see above).

Risks and opportunities in the current situation

Particularly with the possibility of a continuation and broadening of the benefits of the new economy, the underlying outlook for economic growth at the aggregate and regional levels is optimistic. Nevertheless, several caveats need to be taken into account. First of all, the economic recovery in crisis-hit countries and the prolonged growth cycle in some developed countries are accompanied by a legacy of large fiscal and current-account imbalances in many economies. These imbalances need to be lowered and, in some countries, reversed in the medium to longer run. The most critical are the massive trade deficit of the United States and the substantial fiscal deficits in Japan and several emerging market economies. In the former case, the United States is steadily increasing its foreign liabilities, already the highest in the world. In the case of Japan, the fiscal deficits are raising domestic public debt which, in turn, is the highest among developed countries. These two deficits (as well as fiscal imbalances elsewhere) should shrink as

economic expansion continues and becomes more widespread. In the meantime, these imbalances pose a potential threat because a crisis of confidence in either would disrupt financial markets, reduce growth in the United States and Japanese economies and have a wide array of ripple effects that would be to the detriment of the world economy as a whole.

The trade imbalance in the United States reached about $350 billion in 1999, some 4 per cent of GDP, and has been growing since. Japan and Western Europe, on the other hand, have large trade surpluses. These imbalances have developed over the past several years mainly as a result of the widening differentials in growth rates across countries, owing notably to the strong performance of the United States. The latter also gave rise to a strong United States dollar, large increases in equity prices in the United States and large capital inflows (which financed the country's trade deficit).

A shock could reverse this virtuous interaction. The economic recovery in emerging markets, the higher growth in Europe or a further fall in prices in United States equity markets could reduce the inflows of capital to the United States, putting pressure on the exchange rate, the trade deficit or both. A depreciation of the dollar would, after a lag, contribute to the correction of the trade deficit, but it would also have inflationary effects and would probably be countered by a rise in official interest rates. This would further reduce growth in the United States which, coupled with the correction of the trade balance, would have a negative effect on the rest of the world economy.

A slowdown in the United States, particularly if accompanied by a depreciation of the dollar, would be especially critical for Japan where policy makers already face a dilemma. There is a need to cut the large government deficit but the recovery in the private sector, both in consumption and in investment, continues to be fragile. More fiscal stimulus might be necessary to increase private demand, but would place even greater stress on financial markets.

Although the high rates of growth in the United States have not yet resulted in any tangible acceleration in inflation, a second potential difficulty is the possibility that the surge in growth in late 1999 and early 2000 may have finally pushed the economy beyond its non-inflationary potential. There are signs that the labour market is tight, raising the possibility of wage increases and subsequent pressures on prices. In addition, wealth effects of the large increases in the prices of United States equities has contributed to the rapid — and potentially inflationary — increase in consumption.

As indicated above, the Federal Reserve has already taken pre-emptive action to counter the perceived inflationary threat but there is a possibility of further monetary tightening. In addition, the concern of policy makers in almost all other developed countries has also shifted to the possibility of an acceleration in inflation, with the result that they, too, are likely to continue monetary tightening. This is the first time in over a decade that all the major central banks will be moving simultaneously in the direction of tightening monetary policy. The coordinated cuts in interest rates in late 1998 proved effective in avoiding a further deterioration in the global economy at that time, but the global consequences of a move in the opposite direction are untested under the prevailing macroeconomic environment where a number of largely intangible factors, such as investor confidence, play such a critical role. The perennial difficulty of judging when policy action is necessary is

compounded by the advent of the new economy which casts doubt on the validity of some of the criteria used previously. There is a possibility that, in aggregate, the authorities may inadvertently adopt an excessively restrictive stance, with negative consequences for the world economy at large.

The high prices of equities in the United States continue to be another source of vulnerability. There has been considerable volatility in equity markets in the United States since the highs registered in early March 2000. This instability might reflect only the profound changes in the structure of equity markets that have taken place in recent years but it could also be a harbinger of a further fall in prices. If there is such a further correction in stock prices, the wealth effects on consumption, the decrease in investment, the international contagion, and the other possible repercussions would send not only the United States economy but the global economy as a whole to a much lower rate of growth.[5]

There is also the possibility of a supply-side shock. Oil prices have remained volatile and have risen again since the initial drop following the Organization of the Petroleum Exporting Countries (OPEC) agreement to increase quotas (see chap. II). If the prices of over $30 per barrel observed in early 2000 were to return and persist, they could pose various threats to economic growth throughout the world. An oil-price induced acceleration in inflation in developed market economies would probably prompt further increases in interest rates, slowing growth in these countries. This would have negative consequences for the rest of the world, similar to what happened in the global economic slowdown at the beginning of the 1980s.

Another concern is that the strong economic recovery in many crisis-hit economies has to some extent deflected attention from the structural problems that, at the height of the crises, were emphasized as key causes. Policy makers have more recently allocated diminishing attention to resolving these structural problems, as well as those that resulted from the crises. Thanks to these economies' recovery, some of the problems caused by the crises — high unemployment, large budget deficits, and debt problems in the private sector — have been alleviated. However, these cyclical gains are not a substitute for the restructuring of, for example, the still fragile financial and corporate sectors in many of these economies.

Finally, the world economy continues to face the systemic threat that the reform of the world financial architecture is incomplete. There has been considerable progress in enhancing transparency, strengthening regulatory activities and improving internal financial controls within firms. However, there has been less success in ensuring that international public and private actors will be able to handle the next financial crisis when it occurs. The present optimistic outlook should not be allowed to dilute efforts to remove this sword of Damocles.

On the other hand, there could be an upside to the forecast. If the wave of benefits from ICT was to spread itself more widely among developed and emerging market economies, the benefits that the United States economy has recently reported would cumulate and help to sustain a faster pace of economic expansion in the short to medium run. In order to accelerate growth and reduce poverty and unemployment, higher levels of investment, both domestic and foreign, are required. The improved economic environment, particularly if reinforced by continued

[5] The impact of a correction in equity markets in the United States and other major developed markets was discussed in the *World Economic and Social Survey, 1999*, box I.2.

economic reforms, should facilitate higher investment, while the ICT revolution offers opportunities for investment productivity that should raise both overall economic growth and personal well-being in developing countries.

National Governments and the international community should focus on the potential of the "new economy" to raise productivity levels in developing countries and economies in transition. The virtuous circle in the United States has involved a growth-oriented process of adjustment from the "old economy" to the "new economy", whereby the population at large has benefited, albeit not equally. The objective should be to emulate this virtuous circle elsewhere. For this, sound pro-growth domestic policies that encourage the private sector to seize the opportunities offered by ICT are indispensable.

However, historical experience shows that market forces by themselves are unlikely to distribute the benefits from global economic integration and technological innovation equitably across nations or among different groups within countries. Globalization and the ICT revolution have provided many countries with more opportunities to raise incomes and living standards but they are also among the factors that have led to growing inequality both domestically and internationally, with the group of poorest countries being further marginalized. Many countries not yet affected by the ICT revolution may find it difficult to catch up if they have to rely solely on their own resources. Drawing again on the experience of the United States, one consequence of its faster growth has been increased public revenues which give the Government the opportunity to address the needs of those who are otherwise excluded. Similarly, at the global level, sound domestic policies need to be complemented by enhanced global action, particularly increased technological and resource transfer from developed economies to developing countries and the poorer economies in transition, if the potentially divisive effects of ICT and the new economy are to be avoided.[6]

[6] For a detailed programme of proposed actions at the national and international levels and by the United Nations system, see the report of the Secretary-General (E/2000/52) on development and international cooperation in the twenty-first century: the role of information technology in the context of a knowledge-based global economy. Further suggestions are contained in "Poverty amidst Riches: The Need for Change" (report of the Committee for Development Policy on its second session) (available at www.un.org.esa). *The report of the Committee is issued as Official Records of the Economic and Social Council, 2000, Supplement No. 13* (E/2000/33).

Annex

Emergence of the "new economy"

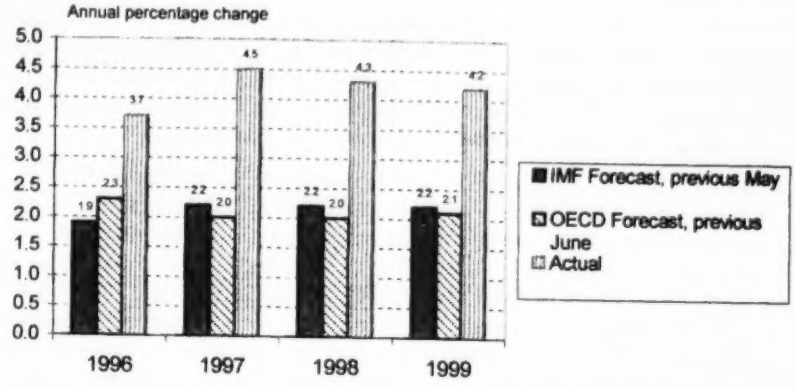
After the recovery from the recession of the early 1990s, the prevailing view was that the United States economy would return to its traditional medium- to long-term average rate of growth of between 2 and 2.5 per cent. It was thought that growth above this rate would trigger inflation, partly because of capacity constraints and wage pressures, and could not be sustained.

Contrary to these expectations, in the second half of the 1990s the United States economy has consistently expanded faster than this previously assumed non-inflationary growth rate (see table A.2) yet inflation has decelerated (see table A.8), reaching one of the lowest rates in the past 30 years. In addition, the unemployment rate has declined steadily to almost 4 per cent (see table A.7).

During this period, forecasts persistently underestimated the rate of growth in the United States (see annex figure I.1), suggesting that there have been changes in the functioning of the economy that are not fully understood.[a] These new mechanisms have been referred to as the "new economy".

[a] Although the *World Economic and Social Survey* traditionally has not included forecasts for the following year, the forecasts of Project LINK also consistently underestimated the growth in the United States economy in this period. However, referring to the second half of the 1990s, the *World Economic and Social Survey 1994* (United Nations publication, Sales No. E.94.II.C.1 and corrigendum) stated (chap. I; subject entitled "Outlook for the world economy: the second half of the 1990s") that changes in the world economic landscape pointed to a combination of forces that had rarely been present since the early 1970s; that in the developed market economies economic policies were more balanced; that fiscal consolidation rather than benign neglect of fiscal deficits was the preferred approach; that financial rehabilitation had run its course, and the financial health of business and households had largely been restored; and that accumulated technological changes and the fact that business confidence was still improving pointed to further increases in gross fixed capital formation, making it less likely that supply bottlenecks would soon emerge to slow down the recovery. The *1994 Survey* postulated that growth could emulate that of the period 1983-1989 when the United States economy had grown by an average close to 4 per cent.

Annex figure I.1
Forecast and actual growth of United States of America GDP, 1996-1999



Source: International Monetary Fund (IMF), *World Economic Outlook* (various issues); Organisation for Economic Cooperation and Development (OECD), *Economic Outlook* (various issues).

The nature of the new economy

The new economy is the fusion of primarily three simultaneous phenomena — rapid technological progress in the computer and communications industries, the internationalization of the United States economy, and changes in the financial environment. This new economic environment has encouraged and enabled economic agents to invest in the new technologies, causing them to be disseminated rapidly. The interaction among investment, growth, employment and inflation has been radically altered as a result. Since 1993, gross domestic private investment in the United States has increased faster than gross domestic product (GDP), and business investment in information technology has increased even faster.

Investment in new computer and communication technologies has affected both internal processes and external interactions in small and large enterprises. New technologies are being introduced at decreasing costs, with the prices of computers and communications falling continuously. The Internet is providing immediate access to vast arrays of information and knowledge, enabling businessmen, households and workers to make better decisions. Information on prices and sources of supply has reduced the need for intermediaries and improved the choices for buyers. The costs of inventories and administration have fallen.[b] Employees at all levels have been displaced, freeing large numbers of workers for new activities.

[b] By the end of the 1990s, the inventory-to-sales ratio of non-farm business had fallen to well below the average of the 1980s and previous decades (see *Economic Report of the President*, February 2000, p. 115).

The internationalization of the economy of the United States — as well as of that of most countries — as a result of improved communications, declining transport costs, trade liberalization, and global financial integration has stimulated a wide range of economic activities and changed the international division of labour in many industries. In many firms, operations traditionally performed in situ are increasingly being subcontracted abroad. Internationalization has intensified competition, making price increases and the emergence of inflationary pressures less likely. Entrepreneurs' improved access to information on input and product markets applies not only to their own country but also to firms abroad. As a result, flexibility has increased and wage and other cost pressures have subsided.

Changes in the domestic financial system have been critical in enabling both domestic and foreign firms and entrepreneurs to mobilize capital for investment in the United States. The extensive application of ICT in the financial sector has reduced the costs and speed of financial intermediation. Commercial banks and non-bank financial institutions have diversified their operations and introduced a wide range of new financial instruments. Securitization and the increased marketability of many financial assets have played a key role in this process. These changes have facilitated and reduced the cost of the channelling of domestic and external funds to new-economy activities.[c] From the borrower's point of view, the result is less reliance on debt-financing and greater use of equity. In particular, even young pioneering companies are able to mobilize venture capital at very low costs and make initial public offerings (IPOs).[d] In addition, the favourable prospects have attracted large amounts of foreign direct investment (FDI) into the United States. As a result of the overall surge in investment, the rate of growth of productivity in the second half of the 1990s is now estimated to have been more than double the average of the previous 20 years.

Productivity growth as the key

The proof of the new economy depends in large measure on whether there has been an increase in productivity. This has been a controversial issue, in part because it is inherently difficult to measure productivity.

For two decades prior to 1995, compared with the 1950s and 1960s, the emergence of the ICT revolution coincided with a slowdown in economy-wide productivity growth in the United States. Three explanations were given for this paradox.[e] First, measurement errors, such as failure to adjust for improvements in the quality of output, may have resulted in an underestimation of productivity growth prior. Second, the computer sector was initially small in relation to the

[c] Venture capital increased more than 10-fold between 1991 and 1999, while the number of companies receiving such funds more than tripled *(The Wall Street Journal,* 22 February 2000, p. C18). Dozens of corporations in the field of informatics that did not exist 10 years ago or whose capitalization was less than $10 million now have a capitalization in excess of $20 billion, in some cases exceeding $50 billion.

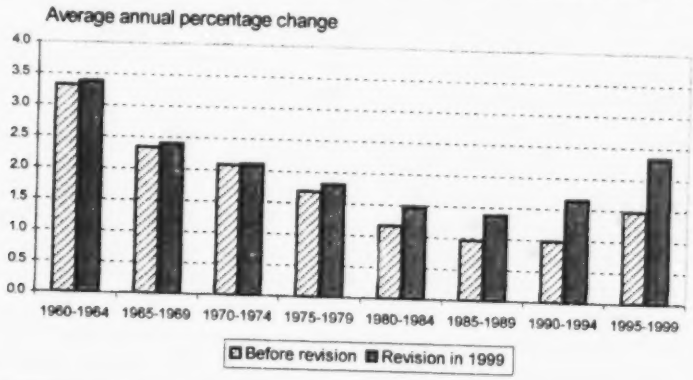
[d] For a description of the United States venture capital industry, see *World Economic and Social Survey 1999* (United Nations publication, Sales No. E.99.II.C.1), chap. VIII, subsect. entitled "The United States of America model".

[e] See *World Economic and Social Survey, 1996* (United Nations publication, Sales No. E.96.II.C.1 and Corr.1), chap. IV, sect. entitled "Investment and productivity measurement: the United States of America and the 'Solow Paradox'".

overall economy, so that its productivity gains were dwarfed by other activities whose productivity growth remained sluggish. Third, it takes a long time for workers to be trained and firms to be restructured, as well as to build up a critical mass of ICT throughout the economy, before its beneficial effects can be fully realized.

The most recent revision in the official statistics for the United States, which corrected some measurement errors, resulted in upward changes in past data on labour productivity (see annex figure I.2). More importantly, the data show that productivity growth since the mid-1990s has accelerated to about 2.5 per cent, double the rate observed over the previous two decades. Some studies have shown that total factor productivity (the gains in growth that cannot be explained by changes in factor inputs) has also risen since 1995 to 1.2 per cent per year, triple the 0.4 per cent average for the previous two decades.[f] Moreover, it is argued that official statistics continue to understate productivity growth in many service industries dependent on advanced technology, notably ICT.

Annex figure I.2
Productivity growth in the United States of America, 1960-1999



Source: United States Department of Labor, Bureau of Labor Statistics.

Note: Data for "Before revision" for 1995-1999 are the three-year average for 1995-1997.

[f] Although ICT has been identified as the major driving force for the recent rise in productivity growth, capital deepening, meaning more capital per worker, and improvements in the quality of labour, through education and on-the-job training, have also contributed.

Stock markets and the new economy: a virtuous circle or a bubble?

The debate about the new economy has also focused on the booming stock markets in the United States and in other developed economies. During 1995-1999, stock markets in the United States, as measured by the performance of the Standard and Poors 500 index (the S&P 500) deflated by the consumer price index (CPI), registered an average annual real return of 24 per cent, double the average over the last century. Moreover, returns on technology stocks, as measured by the National Association of Securities Dealers, Automated Quotations System (NASDAQ) composite index, were triple the rate of return obtained in broad equity markets in 1998-1999; the rate of return for Internet stocks was more than quadruple the NASDAQ average. Although the prices of many technology stocks fell significantly after March 2000, all these indices remained high at the end of April.

The booming stock markets have been closely interrelated with rapid ICT innovations and the strong performance of the real economy, yielding a virtuous circle. Many ICT companies have been able to raise large amounts of capital for further expansion because of the dynamic stock markets, while strong equity appreciation has added to economic growth through the wealth effect on consumption demand. Many households have felt comfortable about spending most of their current incomes, relying on the increases in prices of their assets (shares and real estate) for their savings. In addition to sound economic conditions, the appreciation of equity markets has also been driven by high expectations about future profits in ICT sectors.

Traditional valuation benchmarks suggest that high share prices represent a growing "bubble" in stock markets, but the new-economy paradigm points to alternative explanations. One of these is that there has been a decline in the equity premium — the margin by which the implied rate of return on equity exceeds the rate of return on risk-free securities, such as government bonds, over a comparable period of time. One reason for this is the more propitious political and economic environment, with the end of the cold war and the long virtuous circle of economic growth. A second reason for the lower risk premium is that, by providing more encompassing and more timely information at lower cost, the ICT revolution has reduced uncertainties in many decision-making processes throughout the economy and has therefore reduced the financial risks faced by entrepreneurs and others. This has correspondingly reduced the risk premium that investors require in order to opt for equity rather than risk-free financial instruments.

Another explanation offered for the high equity prices is that they reflect the value of the intangible capital created by the ICT revolution. In an increasingly knowledge-based economy, this intangible capital (which includes intellectual property, managerial capacity and investment in human capital) should be added to the valuation of physical capital assets. According to this argument, traditional yardsticks for valuing equities, such as the price-to-book value, became less relevant for many ICT companies because of their high ratio of knowledge capital to physical capital.

Whether a jump in share valuations reflects an improvement in economic fundamentals or a bubble can be resolved only once the bubble bursts. Moreover, bubbles can coexist, for a considerable period of time, with sound underlying

economic conditions. A substantial fall in equity prices would have negative short-run consequences for the world economy (see above) but the longer-term benefits of the structural changes associated with the new economy are expected to continue.

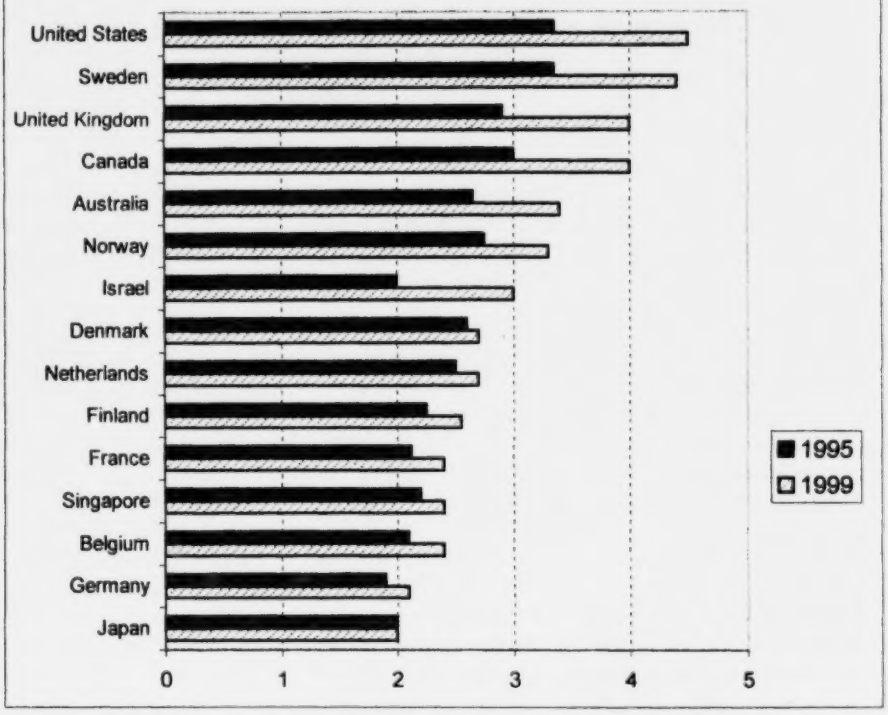
A growth opportunity for other countries?

The fundamental structural changes of recent years seem likely to sustain the new economy in the United States over the medium term. Computer-based processes, business use of the Internet and Internet-related businesses continue to spread. Firms, in general, enjoy sound financial positions and profit levels are facilitating further investment so that productivity increases in the medium term seem likely to maintain the levels of the past eight years. Overall, therefore, the United States economy appears capable of sustaining non-inflationary growth of the order of 3 to 3.5 per cent per annum over the medium term. This is a full percentage point — equivalent to $100 billion annually — more than many, until recently, considered feasible.

With growing international economic interdependence, the major forces driving the strong economic performance of the United States should mutatis mutandis be relevant to the rest of the world. The global economy would gain considerably if the productivity gains of the United States also became characteristic of other countries. There are growing signs that the foundations for such a course are being laid in a growing number of developed countries outside the United States. Stronger foundations for embracing the ICT revolution can also be expected in a growing number of developing economies — in the first instance, those in the vanguard of ICT production and exports. Expanding global economic integration provides a force for such emulation, particularly for the more advanced developing countries. This may presage the formation of a new global economic era, which should provide opportunities for sustaining strong growth throughout most of the world economy for some time into the future.

Signs of the rapid diffusion of the ICT revolution to other economies have been coming to the fore. Developed economies other than the United States have been bolstering their investment spending on ICT hardware and software, although in terms of its strength and depth, this investment lags appreciably behind that of the United States (see annex figure I.3). Some Western European economies are already at the cutting edge in certain ICT sectors (such as wireless communication technology) and some developing countries have been experiencing an ICT boom in certain sectors. For example, India's computer software industry has been growing 50 to 60 per cent annually in recent years and both the stock of personal computers owned by households and the number of Internet users in China doubled in 1998 and again in 1999. More and more countries are launching special high-tech zones. A few economies in Asia have already become the largest manufacturing centres for some categories of ICT hardware. While these were initially set up to service export markets, increasingly this capacity is being utilized to strengthen ICT production for diffusion to other segments of the domestic economies in these countries.

Annex figure I.3
Investment spending on ICT in developed countries, 1995 and 1999
(Percentage of GDP)



Sources: International Data Corporation; and *Business Week*, January 2000.

The experience of the United States suggests why the rise in ICT outlays has apparently not yet affected productivity elsewhere. First, ICT investments in other economies, although growing rapidly, remain comparatively small. For example, computer expenditure per capita in major EU countries is much lower than in the United States. The experience of the United States suggests that the ICT proportion of the capital stock has to reach a critical mass before it begins to impart an appreciable impetus to productivity. This is partially because the benefits of ICT depend on the size of the network that can be accessed as a result of that investment, a phenomenon well known from the spread of, for example, telephones and railways.

Other countries also lag in software and ICT services and cannot match the United States in technological inventions resulting from its high level of spending on research and development (R&D). They also have to overcome such institutional constraints as less liquid and deep financial markets, less developed venture capital networks, less flexible corporate structures and a higher degree of government regulation in certain areas (such as telecommunications). The United States has also shown itself to have a more flexible and efficient labour market which has contributed to the smooth introduction of the new technologies. Despite these constraints, growing international economic interdependence should result in the diffusion of the forces that have propelled productivity growth in the United States. However, in the absence of concerted actions by Governments, the gains to other countries will take time and are likely to be less dramatic, given the sizeable technological gaps that remain.